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**\*\*\* SPECIAL NOTICE \*\*\***

Because of the COVID-19 emergency, this meeting will only be held by teleconference. Committee members and members of the public may fully participate from their own locations.

**NOTICE OF PUBLIC MEETING**

**HOSPITAL BUILDING SAFETY BOARD**  
**Administrative Processes, Code Changes,  
and Standard Details Committee**

**Date:**

Thursday, November 5, 2020

9:00 a.m. – 3:00 p.m.

(Please note early start time)

**Teleconference Meeting Access:**

[HBSB GoToMeeting APCCSD Committee](#)

Access Code: 509-846-261

For more detailed instructions on how to join via GoToMeeting, see page 3.

**Committee Members:** Michael O'Connor, Chair; Roy Lopez, Vice-Chair; Louise Belair; John Donelan\*; Mark Hershberg\*; Mike Hooper; Scott Jackson; Pete Kreuser; Michele Lampshire; Bruce Macpherson; Jim Malley

**OSHDP Staff:** Brett Beekman; Mickey Fong; Bill Gow; Roy Lobo; Dave Mason; Diana Navarro; Carl Scheuerman; Richard Tannahill; Nanci Timmins

**OSHDP Director:** Marko Mijic (Acting)

**FDD Deputy Director:** Paul Coleman

**Executive Director:** Ken Yu

\*Consulting Member

## **2. Presentation: California Building Standards Code Revision Update for 2022**

Facilitator: Richard Tannahill, OSHPD (or designee)

- Part 1, California Administrative Code
- Part 2, California Building Code, Volume 1 and 2
- Part 3, California Electrical Code
- Part 4, California Mechanical Code
- Part 5, California Plumbing Code
- Part 10, California Existing Building Code
- Discussion and public input

# **Code Revisions Proposed for 2022 California Building Standards Code**

November 5, 2020

# **Proposals for Part 1 2022 California Administrative Code**

# 7-111 Definitions

**ACTUAL CONSTRUCTION COST** means the cost of all portions of a project to construct the work as shown on the approved construction documents and as necessary to comply with the California Building Standards Code, generally based upon the sum of the construction contract(s), when applicable, and other direct construction costs, including but not limited to mobilization, general and special conditions, supervision and management, overhead, markups and profit, demolition, building pad construction (including but not limited to grading, soil remediation, excavation, trenching, retaining, shoring, etc.), temporary construction and barriers, materials, supplies, machinery, construction equipment, labor cost...

**COLABORITIVE REVIEW AND CONSTRUCTION (CRC)** means the process that engages the Office, at its sole discretion, utilizing Rolling Reviews for all disciplines starting at the beginning of the first scheduled submittal and continuing through construction for qualified Amended Construction Documents (ACDs). CRC provides regulatory schedule plan exchange meetings and collaborative workshops. CRC may be used for phased or non-phased projects. The Office provides an agreed upon level of review as specified in the Integrate Review Plan.

# 7-111 Definitions (Continued)

**PHASED PLAN REVIEW** is the process that, ~~at its sole discretion,~~ engages the Office, ~~at its sole discretion,~~ early in the project design and continues through the development and submission of documents during the conceptualization, criteria design, detailed design, implementation documents, Office review, construction and closeout phases and final plan approval. Within each phase, milestones are established for specific, agreed upon points in time where segments/elements of the design/building system are completely designed and/or defined in their entirety. The Office provides an agreed upon level of review that allows for written conditional acceptance of these elements and/or systems.

**START OF CONSTRUCTION** is the date of permit issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within one year 180 days after the date of permit issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns, or the preparation of components required for the project offsite.

Permanent construction does not include land preparation (such as clearing, excavation, grading or filling), the installation of streets or walkways, excavation for a basement, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building. For a substantial improvement, the actual "start of construction" means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

# 7-111 Definitions (Continued)

***SUBSTANTIAL COMPLIANCE*** *refers to a stage of a construction or building project or a designated portion of the project that is sufficiently complete, in accordance with the construction contract documents, so that the owner may use or occupy the building project or designated portion thereof for the intended purpose.*

# 7-130. Phased submittal, review and approval.

The Office, ~~in~~ at its sole discretion, may enter into a written agreement with the hospital governing board or authority for the phased submittal, review and approval of construction documents.

## 7-133. Fees.

1. The fee for hospital buildings is 1.64 percent of the estimated construction cost. The estimated construction cost shall include fixed equipment cost or estimated value (including shipping, installation, and taxes) but exclude design fees, inspection fees and off-site construction work.

For projects under \$250,000, the fee is 2.0 percent of the estimated construction cost.

BA. The Office shall charge actual costs for review and approval of seismic evaluations and compliance plans prepared pursuant to Article 8, Chapter 1, Part 7, Division 107, (commencing with Section 130000) of the Health and Safety Code. Total cost paid for these review services shall be nonrefundable.

Not addressed yet: Applicant turnaround times for small/large projects. Projects not submitted within return times would not be subject to reduced review times.



# 7-145 Continuous inspection of the work

(a) The general duties of the IOR shall be as follows:

...

5. The IOR shall notify the Office *in writing*:

A. When the work is started or ...

...

6. The IOR(s) shall maintain field records of construction progress for each day or any portion of a day that they are present at the project site location. The field record shall state the time of arrival, time of departure, a summary of work in progress and noted deficiencies in the construction or deviations from the approved construction documents. The field record shall document the time and date of all significant correspondence with the contractor regarding incomplete work, potential deficiencies or deviations which require the contractor's attention and could potentially affect the timely and compliant completion of the project. This field record shall document the date, time and method of correction for any noted deficiencies or deviations. In addition, this record shall contain the following as applicable:

# 7-145 Continuous inspection of the work (Continued)

A. Copies of all certificates, tags, marks or other evidence of material properties and/or manufactured components as required by the California Building Standards Code.

AB. The time and date of placing concrete; time and date of removal of forms and shoring in each portion of the structure; location of defective concrete; and time, date and method of correction of defects.

BC. Identification marks of welders, lists of defective welds, and manner of correction of defects and other related events.

CD. A list of test reports of all nonconforming materials or defective workmanship and shall indicate the corrective actions taken.

E. The names and certificate numbers (when applicable) of all special inspectors who perform work both on and off-site.

DE. When driven piles are used for foundations, the location, length and penetration under the last ten blows for each pile. It shall also include a description of the characteristics of the pile driving equipment.

EG. The log of changes to the work prepared by the architect or engineer in responsible charge required by Section 7-153(e).

# 7-145 Continuous inspection of the work

7. Field records may be kept electronically. All field records of construction progress shall be retained on the job until the completion of the work and shall, upon request, be made available to the Office, the architect or engineer in responsible charge and the owner. Electronic records may be retained off-site if made available during on-site and remote review of documents. Upon completion of the project, these original field records shall be submitted to the hospital governing board or authority.

## 7-205 ~~Location of~~ Contact with office.

All correspondence, applications and remittances related to the certification or recertification of Hospital Inspector shall be directed to: the Office of Statewide Health Planning and Development, Facilities Development Division, Hospital Inspector Certification Program, ~~400 R Street, Suite 200, Sacramento, CA 95811.~~

# **Proposals for Part 2 Volume 1 2022 California Building Code**

## 1224.3 Definitions

**FLOOR AREA, CLEAR.** *The actual occupied area exclusive of fixed or wall-mounted cabinets, fixed ~~beds and furnishings~~ exclusive of beds, built-in shelves, toilet rooms, closets, lockers, wardrobes, alcoves, anterooms or vestibules.*

**INVASIVE PROCEDURE** *means a procedure that is performed in an aseptic surgical field and penetrates the protective surfaces of a patient's body (e.g. subcutaneous tissue, mucous membranes, cornea). An invasive procedure may fall into one or more of the following categories:*

Requires entry into or opening of a sterile body cavity (i.e. cranium, chest, abdomen, pelvis, joint spaces)

Involves insertion of an indwelling foreign body

Includes excision and grafting of burns that cover more than 20 percent of total body area

Does not begin as an open procedure but has a recognized measurable risk of requiring conversion to an open procedure

## 1224.3 Definitions *(Continued)*

**PROCEDURE ROOM** means a room designated for the performance of patient care that requires high-level disinfection or sterile instruments and some environmental controls but is not required to be performed with the environmental controls of an operating room.

**SERVICE SPACE.** Service Space refers to the distinct area of a health facility where a licensed Basic Service or Supplemental Service is provided. The Service Space shall include all the functional area requirements required to deliver the specific Service. Basic Service Spaces are identified in Sections 1224.14 through 1224.27. Supplemental Service Spaces are identified in Sections 1224.28 through 1224.41. Similar distinctions are made between Basic and Supplemental or Optional Services in Section 1225 through Section 1228. Required functional areas may be a portion of a larger space, one or more Patient Care Locations, support areas or separate Rooms as defined in Section 1224.3. See departmental boundary requirements under Section 1224.4.4.7.6.



## 1224.3 Definitions *(Continued)*

**[BS] START OF CONSTRUCTION.** **[Not adopted by OSHPD]** The date of permit issuance for new construction and substantial improvements to existing structures, provided ...

## 1224.4 GENERAL CONSTRUCTION

### 1224.4.4.4 Medication station.

**1224.4.4.4.1 Medication preparation room.** *If provided, this room shall be lockable and be directly accessible from the nursing station. When a medicine preparation room is to be used...*



# 1224.4 GENERAL CONSTRUCTION

TABLE 1224.4.6.1

## STATION OUTLETS FOR OXYGEN, VACUUM (SUCTION), AND MEDICAL AIR SYSTEMS<sup>1, 6</sup>

	LOCATIONS	OXYGEN	VACUUM	MEDICAL AIR	WAGD <sup>3</sup>
1	Patient rooms (medical/surgical unit)	1/bed	1/bed	—	—
2	Examination or treatment (medical/surgical unit and postpartum care)	1/room	1/room	—	—
3	Airborne infection isolation or protective environment rooms (medical/surgical unit)	1/bed	1/bed	—	—
4	Seclusion room (medical/surgical unit and postpartum care)	1/bed	1/bed	—	—
5	Intensive care (general)	3/bed	3/bed	1/bed	—
6	Airborne infection isolation ( <u>intensive care</u> )	3/bed	3/bed	1/bed	—
7	Coronary-care service space	3/bed	2/bed	1/bed	—
8	Pediatric intensive care	3/bed	3/bed	1/bed	—
9	Newborn intensive care	3/bassinet	3/bassinet	3/bassinet	—
10	Newborn nursery (full term)	1/4 bassinets <sup>2</sup>	1/4 bassinets <sup>2</sup>	1/4 bassinets <sup>2</sup>	—

# 1224.4 GENERAL CONSTRUCTION

TABLE 1224.4.6.5  
[OSH PD 1, 1R, 2, 3, 4 & 5] LOCATION OF NURSE CALL DEVICES  
• = Required

AREA DESIGNATION	STATION TYPE	1224	1225	1226	1227	1228
<i>Nursing Units</i>						
<i>Patient toilet room</i>	<i>B</i>	•	•		•	
<i>Patient bathing</i>	<i>B</i>	•	•		•	
<i>Special bathing</i>	<i>E</i>	•				
<i>Patient bed (nursing service)</i>	<u>P, E, C</u>	•			•	
<i>Post-op patient care/PACU</i>	<u>P, E, C</u>	•		•	•	
<i>Imaging exam/procedure room</i>	<u>E, C</u>	•		•	•	
<i>Procedure Room, including Endoscopy</i>	<u>E, C</u>	•		•	•	
<i>Patient toilet room</i>	<i>B</i>	•		• <sup>1</sup>	•	
<i>Electroconvulsive therapy</i>	<u>E, C</u>	•			•	•

## Station Types

*P* = Patient Station, *B* = Bath Station, *E* = Staff Emergency, *C* = Code Call, *M* = Master, *D* = Duty

1. Not required for Primary Care, Chronic Dialysis, Rehabilitation or Psychology Clinics.

## 1224.4 GENERAL CONSTRUCTION

### 1224.4.6 Miscellaneous requirements.

**1224.4.6.6 Rooms with multiple beds or gurneys.** Unless noted otherwise, the dimensions and arrangement of rooms with multiple beds/gurneys shall be such that there is a minimum of 3 feet (914 mm) between the sides and any wall or any other fixed obstruction. A minimum clearance of 3 feet (914 mm) shall be provided between beds and a clearance of 4 feet (1219 mm) shall be available at the foot of each bed to permit the passage of equipment and beds.

**1224.4.11 Interior finishes.** For imaging, examination/treatment, procedure, and operating rooms also see Table 1224.4.11.4a.

**1224.4.11.4 Ceilings.** Ceilings in areas occupied by patients...

**1224.4.11.4.1 Ceiling finishes.** Ceiling finishes shall comply with Table 1224.4.11, Table 1224.4.11.4.1a, and the following requirements:

**TABLE 1224.4.11.4a**

**EXAMINATION/TREATMENT, IMAGING, PROCEDURE, AND OPERATING ROOM CLASSIFICATION <sup>1, 2</sup>**

<u>ROOM</u>	<u>USE</u>	<u>ROOM TYPE</u>	<u>LOCATION</u>	<u>SURFACES</u>
<u>Exam or treatment room</u>	<u>Patient care that may require high-level disinfected or sterile instruments but does not require the environmental controls of a procedure room</u>	<u>Unrestricted area</u>	<u>Accessed from an unrestricted area</u>	<u>Flooring: cleanable and wear-resistant for the location; stable, firm, and slip-resistant</u>  <u>Wall finishes: washable</u>  <u>Ceiling: cleanable with routine housekeeping equipment; lay-in ceiling permitted</u>
<u>Class 1 imaging room</u>	<u>Diagnostic radiology, fluoroscopy, mammography, computed tomography (CT), ultrasound, magnetic resonance imaging (MRI), and other imaging modalities. Services that use natural orifice entry and do not pierce or penetrate natural protective membranes</u>			

<u>Procedure room</u>	<u>Patient care that requires high-level disinfection of the room, sterile instruments, and some environmental controls but does not require the environmental controls of an operating room.</u> <u>Endoscopic procedures</u>	<u>Semi-restricted area</u>	<u>Accessed from an unrestricted or a semi-restricted area</u>	<u>Flooring: cleanable and wear-resistant for the location; stable, firm and slip-resistant</u> <u>Floor and wall base assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches.</u>  <u>Wall finishes: washable; free of fissures, open joints or crevices</u>
<u>Class 2 imaging room</u>	<u>Diagnostic and therapeutic procedures such as coronary, neurological, or peripheral angiography</u> <u>Electrophysiology procedures</u>			<u>Ceiling: smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, tegular, serrated, or highly textured tiles.</u>

<u>Operating room</u>	<u>Invasive procedures<sup>3</sup> Any procedure during which the patient will require physiological monitoring and is anticipated to require active life support</u>	<u>Restricted area</u>	<u>Accessed from a semi-restricted area</u>	<u>Flooring: cleanable and wear-resistant for the location, stable, firm, and slip-resistant Floor and wall assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches</u>
<u>Class 3 imaging room</u>	<u>Invasive procedures<sup>3</sup> Any Class 2 procedure during which the patient will require physiological monitoring and is anticipated to require active life support</u>			<u>Wall finishes: washable; free of fissures, open joints, or crevices</u>  <u>Ceiling: monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemical, gasketed access openings</u>

1. This table includes a brief description of the services performed in these room types and a summary of some applicable requirements that appear elsewhere in the California Building Code.
2. Other requirements that apply to these room types include, but are not limited to, ventilation, lighting, and sound transmission requirements. See California Mechanical Code Table 4-A and ASHRAE 170 for ventilation requirements. See California Electrical Code, Article 517 for lighting and power requirements. See California Building Code Table 1224.4.19 for noise transmission requirements.
3. "Invasive procedure" is defined in Section 1224.3 definitions.

## 1224.5.4 SPC/NPC compliance

**1224.5.4 SPC/NPC compliance.** *The location of spaces required by this section shall meet the requirements of California Existing Building Code, Section ~~3416A~~ 307A Compliance Alternatives for Services/Systems and Utilities.*

## 1224.14 NURSING SERVICE SPACE

**1224.14.2 Support areas.** ~~The provision for the support areas listed below shall be in each nursing unit, unless noted otherwise. The size and location of each support area will depend upon the numbers and types of beds served. If it has direct access to the unit,~~ ~~s~~Some support areas may be arranged and located to serve more than one nursing unit as indicated below, but, unless noted otherwise, at least one such support area shall be provided on each nursing floor.



## 1224.14 NURSING SERVICE SPACE

**1224.14.2.2 Nurse or supervisor office.** A nurse or supervisor office shall be provided ~~in each nursing unit~~ and may be shared between adjacent nursing units on the same floor.

...

**1224.14.2.6 Clean utility/workroom.** Clean utility/workroom shall be provided ~~in each nursing unit~~ and shall comply with ~~to~~ Section 1224.4.4.

...

**1224.14.2.7 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room shall be provided ~~in each nursing unit~~ and shall comply with Section 1224.4.4.7.

...

**1224.14.2.10 Nourishment area.** A nourishment area or room shall be provided ~~in~~ for each nursing unit and shall comply with Section 1224.4.4.5.

## 1224.14 NURSING SERVICE SPACE

**1224.14.2.12 Equipment storage room.** Appropriate room(s) shall be provided for storage of equipment necessary for patient care. ~~Each unit shall provide with not less than 10 square feet (0.93 m<sup>2</sup>) per patient bed.~~

...

**1224.14.2.14 Centralized bathing facilities.** When individual bathing facilities are not provided in patient rooms, there shall be at least one shower and/or bathtub for each 12 beds without such facilities. Each bathtub or shower shall be in an individual room or enclosure that provides privacy for bathing, drying, and dressing. Each centralized bathing facility shall have direct access to a patient toilet and handwashing fixture.

~~**1224.14.2.14.1 Special bathing facilities.** Special bathing facilities, including space for attendant, shall be provided for patients on gurneys, carts, and wheelchairs at the ratio of one per 100 beds or a fraction thereof. The special bathing facility may be located in a nursing unit on a separate floor.~~

# 1224.15 SURGICAL SERVICE SPACE

## 1224.15.2 Surgery

**1224.15.2.1 General operating room(s).** Each room shall have a minimum...

...

**1224.15.2.2 Procedure room(s).** Where a procedure room is provided in a surgery department, it shall meet the requirements in this section.

### **1224.15.2.2.1 General.**

(1) Application. The governing body shall perform a clinical assessment of the procedures to be performed to determine the appropriate room type and location for these procedures and document this in the Functional Program in compliance with the California Administrative Code, Section 7-119. Where a procedure room is used for multiple procedure types, the room shall meet the most stringent requirements for the space.

(2) Location. The procedure room shall meet the requirements of a semi-restricted area. The procedure room shall be permitted to be accessed from a semi-restricted corridor or from an unrestricted corridor.

# 1224.15 SURGICAL SERVICE SPACE

## **1224.15.2.2.2 Space requirements.**

(1) Area. Procedure rooms shall have a minimum clear floor area of 130 square feet (12.08 m<sup>2</sup>). Procedure rooms where anesthesia will be administered using an anesthesia machine and supply carts shall have a minimum clear floor area of 160 square feet (14.86 m<sup>2</sup>). Procedure rooms where procedures will be performed that require additional personnel and/or large equipment shall be sized to accommodate the personnel and equipment planned to be in the room during procedures, including and additional personnel and equipment that will be needed for emergency rescue.

(2) Clearances. Procedure rooms shall have the following minimum clearances around the table, gurney, or procedure chair:

(a) 3 feet 6 inches (1070 mm) on each side

(b) 3 feet (9144 mm) at the head and foot. Where an anesthesia machine and associated supply cart is used, the clearance at the head shall be 6 feet (1830 mm).

(3) Fixed encroachments into the minimum clear floor area. Fixed encroachments shall be permitted to be included when determining the minimum clear floor area for a procedure room as long as:

(a) The encroachments do not extend more than 12 inches (305 mm) into the minimum clear floor area.

(b) Where a sterile field is provided, the encroachment shall not extend into the sterile field.

(c) The encroachment width along each wall does not exceed 10 percent of the length of that wall.

# 1224.15 SURGICAL SERVICE SPACE

## **1224.15.2.2.3 Documentation area.**

(1) Accommodations for written and/or electronic documentation shall be provided in the procedure room.

(2) Where a built-in feature is provided for documentation, it shall allow for direct observation of the patient.

## **1224.15.2.2.4 Patient privacy.** Provisions shall be made for patient visual and speech privacy.

**1224.15.2.2.5 Handwashing station.** A handwashing station shall be provided in the procedure room. Where a hand scrub station is directly accessible to the procedure room, omission of the handwashing station is permitted.

**1224.15.2.2.6 Surgical cystoscopic and other endo-urologic procedures.** Each room shall have a minimum clear floor area of 250 square feet (23.23 m<sup>2</sup>) with a minimum of 15 feet (4572 mm) clear dimension between fixed cabinets and built-in shelves, X-ray viewing and/or other imaging modality capabilities shall be provided.

**Exception:** Where renovation of operating rooms is undertaken in facilities built under the 2001 or prior California Building Code...

**1224.15.3 Service areas.** Services, except for the enclosed soiled workroom ...

# 1224.16 ANESTHESIA/RECOVERY SERVICE SPACE

## 1224.16.3 Recovery and Post-Anesthesia Care Unit (PACU)...

**1224.16.3.1 Space requirements.** A minimum of 4 feet (1218) clearance shall be provided between the sides and the foot of patient gurneys, or beds, and adjacent walls or other fixed elements. A minimum clear floor area of 80 square feet (7.43 m<sup>2</sup>) shall be provided for each station in an open-bay plan. A minimum of 5 feet (1524 mm) shall be provided between sides of gurneys or beds, and a minimum of 3 feet (914 mm) clearance shall be provided between the foot of the gurney or bed, to a closed cubicle curtain. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided at the foot of the gurney or bed. See patient Bay under Patient Care Locations in Section 1224.3.

# 1224.18 RADIOLOGICAL/DIAGNOSTIC IMAGING SERVICE SPACE.

**1224.18 RADIOLOGICAL/DIAGNOSTIC IMAGING SERVICE SPACE.** Space and equipment shall be provided to accommodate all required elements, and any additional imaging modalities included in the service space, as required in this section. To differentiate the design and construction requirements needed to achieve the environmental controls and other requirements that support the amount of intervention to be provided, imaging rooms shall be classified as described in Table 1224.4.11.4a (Examination/Treatment, Imaging, Procedure, and Operating Room Classification). Where an imaging room will be used for Class 1 and Class 2 procedures, the more stringent requirements for the higher class room shall apply. Where imaging procedures meeting Class 3 criteria are performed, rooms that meet the requirements for the applicable imaging suite and for an operating room per Section 1224.15.2.1 or hybrid operating room per Section 1228.28.5 shall be provided. If Class 2 or Class 3 interventional or image-guided procedures are performed in the imaging services area, additional provisions shall be as described in Section 1224.28 Supplemental Surgery and other Special Procedure Services. If nuclear medicine is provided in the imaging services area, spaces shall also comply with the requirements described in Section 1224.34 Nuclear Medicine.

**1224.18.1 Minimum requirements.** Hospital shall provide a minimum of...

1. One fluoroscopy room...



# 1224.18 RADIOLOGICAL/DIAGNOSTIC IMAGING SERVICE SPACE.

## 6. Handwashing stations located within the unit.

a) Handwashing station(s) shall be provided within the unit to serve imaging spaces not served by a dedicated handwashing station within the imaging room, or scrub facility located directly outside the imaging/procedure room.

b) A handwashing station shall be provided in Class 1 imaging rooms, unless specified otherwise for a specific imaging modality.

c) A handwashing station or hand scrub facility shall be provided for Class 2 imaging rooms. If a handwashing station is provided, it shall be directly accessible to the imaging room. If a hand scrub facility is provided, it shall be directly outside the entrance to the imaging room.

d) Hand scrub facilities shall be provided directly outside the entrance to a Class 3 imaging room.

## 7. Dressing room facilities.



# 1224.18 RADIOLOGICAL/DIAGNOSTIC IMAGING SERVICE SPACE.

**1224.18.1.1 Radiation protection.** A certified physicist or other qualified expert shall specify the type, location, and amount of radiation protection...

1. The control alcove or room shall be, at minimum, sized and configured in compliance with the manufacturer's recommendations for installation, service, and maintenance.
2. A control alcove or room shall be permitted to serve more than one imaging room, provided the manufacturer's recommendations for installation, service, and maintenance are accommodated for all rooms served.
3. The control alcove or room shall include a shielded view window, as specified in the physicist's report, designed to provide a full view of the examination/procedure table and the patient at all times, including a full view of the patient during imaging activities (e.g. when the table is tilted or the chest x-ray is in use).
4. The control room shall be physically separated from a Class 2 or Class 3 imaging room with walls and a door.
5. Where an imaging room requires positive (or negative) pressure, a door shall be provided between the control room and the imaging room.

## 1224.18 RADIOLOGICAL/DIAGNOSTIC IMAGING SERVICE SPACE.

**1224.18.1.2 Multiple-modality devices.** *Where two or more individual imaging or therapy modalities are integrated into one imaging device (e.g. PET/CT, SPECT/CT, or PET/MRI), the minimum requirements for that room shall include the criteria for each individual contributing modality. Refer to Section 1224.34 for modalities not included under Section 1224.18.*

## 1224.20 DIETETIC SERVICE SPACE.

**1224.20.3 Outside Service.** *On approval of the Licensing Agency, when food is provided by an outside food service, all applicable licensing and certification requirements shall be met. The facility shall maintain adequate space, equipment and food supplies to accommodate required functional elements listed in Section 1224.20.2, as required to provide patient food service in the event that outside food service is interrupted. A temporary mobile kitchen approved by the licensing agency can be used to meet the requirements of 1224.20.2 during construction.*

# 1224.25 EMPLOYEE DRESSING ROOMS AND LOCKERS.

- **1224.25 EMPLOYEE DRESSING ROOMS AND LOCKERS.**

- **1224.25.1 Minimum facilities.** *Hospitals shall provide the following:*

- 1. *Separate dressing rooms for male and female personnel with lockers, ~~lavatory~~ and a toilet room.*
    - 2. *Additional dressing rooms for the surgical service and as required within any of the supplemental services.*

# 1224.28 SUPPLEMENTAL SURGERY AND SPECIAL PROCEDURE SERVICES

## 1224.28.4 Interventional imaging.

...

**1224.28.4.12 Staff changing areas.** Male and female sStaff changing areas shall be provided and arranged to ensure a traffic pattern so that personnel can enter from outside the suite, change their clothing, and move directly into the semi-restricted corridor within the interventional imaging suite.

...

## 1224.28.5 Hybrid operating room(s).

...

**1224.28.5.2 Control room.** If required, a control room shall be provided that accommodates the imaging system control equipment and the following requirements:

1. The control room shall have a minimum clear floor area of 120 square feet (11.15 m<sup>2</sup>), which may include fixed work surfaces.
2. The room shall be physically separated from the hybrid operating rooms with walls and a door.
3. The room shall have viewing windows that provide for a full view of the patient and the surgical team.  
Cameras shall be permitted to provide for full view of patient while positioned in imaging equipment.

## 1224.29 INTENSIVE CARE UNITS

**1224.29.1.13 Airborne infection isolation room.** *At least one airborne infection isolation room shall be provided per unit. The room shall comply with the requirements of Section 1224.14.3; however, the adjoining toilet room is not required. Modular toilet units located within a privacy curtain may be used within the airborne infection isolation room. The modular toilet fixture shall comply with Section 1224.29.1.4.*

*Exception: When approved by the licensing agency an airborne infection isolation room is not required for small or rural hospitals or burn center units.*

## 1224.29.2 NEWBORN INTENSIVE CARE UNITS (NICU)

**1224.29.2.6 Area.** *Each patient care space shall contain a minimum of 120 square feet (11.15 m<sup>2</sup>) of clear floor area per bassinet excluding handwashing fixtures and aisles with a minimum headwall width of 11 feet (3353 mm). There shall be an aisle for circulation adjacent to each patient care space with a minimum width of 4 feet (1219 mm). In multi-bed rooms a minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided at the foot of the basinet.*

# 1224.31 PSYCHIATRIC NURSING UNIT

**1224.31.1 Psychiatric unit space.** *A psychiatric unit shall be housed in a separate and distinct nursing unit and shall provide the following:*

**1224.31.1.1 General.** *A psychiatric nursing unit shall meet the requirements of Section 1224.14 for a unit that provide acute medical care or 1228.14 for a non-medical unit, in addition to the requirements of Section 1228.4, based on the functional program. Specific application shall respond to the patient injury and suicide prevention component of the Patient Safety Risk Assessment prepared under California Administrative Code (Part 1 of Title 24) Section 7-119. If a unit provides acute medical care, the unit shall ~~comply with Section 1224.14~~ and be located in a building that is compliant with California Administrative Code Chapter 6 for OSHPD-1.*

**1224.31.1.2 Administrative center(s) or nurse station(s).** *The distance between the nurses station entrance and the center of the doorway of the most remote patient bedroom shall not exceed 90 linear feet (27,432 mm). Refer to Section 1224.4.4.2.*

...

**1224.31.1.10 Occupational therapy.** *Facilities for occupational therapy shall comply with Section 1224.35.3, items 1, 2 and 3. Eliminates item 4. CDPH concurs*



## 1224.32 OBSTETRICAL FACILITIES (PERINATAL UNIT SPACE)

**1224.32.3.2 Delivery room(s).** At least one delivery room shall be provided in the obstetrical unit. Delivery rooms shall have a minimum clear floor area of 300 square feet (27.87 m<sup>2</sup>). An emergency communication system shall be connected with the obstetrical facilities control station.

**1224.32.3.2.1 Postpartum bed ratio.** Delivery rooms, which are used for no other purpose, shall be provided at the ratio of one per 12 postpartum beds and for each major fraction thereof.

**Exceptions:**

1. If LDR or LDRP beds are provided, each LDR or LDRP may be counted as a delivery room in the postpartum bed ratio. This does not exempt the delivery room required per 1224.32.3.2.
2. When approved by the licensing agency, the operating room of small or rural hospitals with a licensed bed capacity of 50 or less may serve as the delivery room.

## 1224.33 EMERGENCY SERVICE

**1224.33.2.2 Treatment room.** Standby emergency service shall include at least one treatment room with the following elements:

...

5. Multiple-station treatment rooms shall provide a minimum of 80 square feet (7.43 m<sup>2</sup>) per patient gurney, with a minimum 8 foot width (2,438 mm) and 3 feet (914 mm) at the foot of the bed/gurney, with a minimum of 3 feet to any wall or fixed obstruction, and a minimum of 5 feet (1524 mm) between patient gurneys. Patient gurneys shall be separated from adjoining cubicles by curtains. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided at the foot of the gurney. Handwashing fixtures shall be provided for each four treatment stations and for each major fraction thereof in multiple-station areas. These shall be uniformly distributed to provide equal access from each patient station.

...

**1224.33.3.14 Medication preparation room.** A minimum of one medication preparation room shall be provided in accordance with Section 1224.4.4.4.1. Self-contained medication dispensing units may be provided in addition.

# 1224.34 NUCLEAR MEDICINE

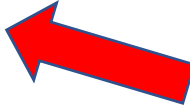
## **1224.34.1.2.3 Single-Photon Emission Computed Tomography (SPECT) Facilities.**

*When provided shall include the following:*

- 1. ~~Scanner room.~~ Scanner room shall provide a minimum clearance of 4 feet (1218 mm) at each side and the foot of the table. Additional space shall be provided when SPECT is combined with CT, and include compliance with Section 1224.18.3 and shielding requirements in Section 1224.34.1.1.*

## 1224.39 OUTPATIENT SERVICE SPACE

**1224.39.3.4 Post-anesthesia recovery area.** *A post-anesthesia recovery area shall meet the requirements of Section 1224.16.3.*



...

**1224.39.3.6 Service areas.** *Each gastrointestinal endoscopy unit shall provide the support areas required under Section 1226.5.11.6 if not shared within the department.*

# 1224.39 OUTPATIENT SERVICE SPACE

## 1224.39.4 CANCER TREATMENT/INFUSION THERAPY SERVICE SPACE.

...

**1224.39.4.2.3 Individual patient treatment areas.** *Shall contain at least 80 square feet (7.4 m<sup>2</sup>). There shall be at least a 4-foot (1219 mm) space around and between beds and/or lounge chairs used for chemotherapy treatment/infusion. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided at the foot of the bed or lounge chair.*

...

## 1224.39.6 OUTPATIENT OBSERVATION UNITS.

...

### 1224.39.6.4 Patient care stations. ...

*2. Multi-station rooms or areas: 80 square feet (7.4 m<sup>2</sup>) per patient station. A minimum distance of 3 feet (914 mm) shall be provided between beds and 4 feet (1219 mm) between the foot of beds and walls or other fixed obstructions. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided at the foot of the gurney or bed.*

# 1225 SKILLED NURSING AND INTERMEDIATE-CARE FACILITIES

## 1225.4 COMMON ELEMENTS

...

**1225.4.1.6.3 Bathroom facilities.** Bathtubs or showers shall be provided at a ratio of 1:20 patients, and for each major fraction thereof, with a minimum of one bathtub per floor. A separate private toilet shall be provided that is directly accessible to each multi-bathing fixture central bathing area without requiring entry into the general corridor.

# 1226 CLINICS

**1226.4 General Construction.** Clinics and outpatient clinical services under a hospital license shall comply with the ~~following provisions wherever applicable under Section 1224.4, General Construction, where applicable, except as supplemented, amended or modified below.~~

**1226.4.1 Examination and treatment areas.**

...

**1226.4.2 Miscellaneous requirements.**

**1226.4.2.1 Station outlets.** When provided, refer to Section 1224.4.6.1.

**1226.4.2.2 Gas and vacuum systems.** When provided refer to Section 1224.4.6.2.

**1226.4.2.3 Hyberbaric facilities.** When provided, refer to Section 1224.4.6.3.

**1226.4.2.4 Laboratories.** Refer to Section 1224.4.6.4.

**1226.4.2.5 Nurse call systems.** Refer to Section 1224.4.6.5.

**1226.4.2.6 Noise reduction.** The noise reduction criteria shown in Table 1224.4.19 shall apply to partitions, floors, and ceiling construction in patient treatment areas.

# 1226 CLINICS

## **1226.5.11 Gastrointestinal endoscopy.**

...

**1226.5.11.6.8 Housekeeping room.** Refer to Section ~~1224.39.2, Item 7~~  
1224.39.2.3.2.



# 1228 ACUTE PSYCHIATRIC HOSPITALS

~~**1228.4.4.2 Administrative center(s) or nurse station(s).** Refer to Section 1224.4.4.2. Reserved.~~

...

**1228.4.8 Doors and door openings.** Refer to Section 1224.4.8 with the following modifications and amendments:

1. *Where indicated by the Patient Safety Risk Assessment, toilet room doors shall be equipped with keyed locks that allow staff to control access to the toilet room.*
2. *Use of door closers is to be avoided unless required by other sections of this code.*
3. *Door hinges shall be designed to minimize accessible anchor points (e.g., cut hinge type, piano hinge, concealed hinge, etc.).*
4. *Except for specifically designed ligature-resistant hardware, door lever handles shall point downward when in the latched and in the unlatched position.*
5. *All hardware shall have tamper-resistant fasteners.*
6. *Soft doors may be used for patient room toilets where indicated in the Patient Safety Risk Assessment.*

# 1228 ACUTE PSYCHIATRIC HOSPITALS

**1228.13.3 Occupational therapy service space.** *Where provided, occupational therapy shall comply with Section 1224.35.3, items 1, 2 and 3. Eliminates item 4. CDPH concurs*

...

**1228.14.2.12 Equipment and supply storage.** Appropriate room(s) shall be provided for storage of equipment necessary for patient care. Each unit shall provide not less than 5 square feet (0.46 m<sup>2</sup>) per patient bed. ~~Equipment and supply storage is required, refer to Section 1224.14.2.12.~~ *Location of the storage areas shall not present a risk to the patient population as indicated in the functional program.*

# 1228 ACUTE PSYCHIATRIC HOSPITALS

**1228.23 STORAGE.** ~~Refer to Section 1224.23, Storage, for requirements and the additional requirements below:~~

**1228.23.1 General storage.** Hospitals shall provide general storage space of at least 10 square feet (0.93 m<sup>2</sup>) per bed in addition to specialized storage spaces. All storage spaces shall be located within the hospital building and readily accessible to the connecting corridor required under Section 1224.4.7.5.

**1224.23.2 Specialized storage.** Specialized storage spaces shall include the following:

**1224.23.2.1 Linen.** Provide separate and enclosed facilities for clean and soiled linen in each nursing unit. The clean linen storage space shall have a minimum area of 10 square feet (0.93 m<sup>2</sup>) and may be within the clean utility room. The soiled linen collection space shall have an area of no less than 10 square feet (0.93 m<sup>2</sup>), except where linen chutes are provided, and may be within the soiled utility room.

**1224.23.2.2 Supply.** One supply storage space having a minimum area of 15 square feet (1.39 m<sup>2</sup>) shall be provided in each nursing unit. Supply storage may be within the clean utility room used only as part of a system for distributing clean and sterile supplies.

**1224.23.2.4** Sterile and unsterile supplies shall be stored separately.

**1224.23.2.5** Food storage shall be as described in Section 1224.20.

**1228.23.13 Patient storage facilities.** A staff-controlled secured storage area shall be provided for patient's effects that are determined to be potentially harmful (e.g., razors, nail files, cigarette lighters).

# 1228 ACUTE PSYCHIATRIC HOSPITALS

**1228.30.5 Education.** *If a unit treats children of school age over a period of one month or more, it shall provide physical facilities for an educational program, such as classrooms and an office for the teacher.*

...

**1228.19 PHARMACEUTICAL SERVICE SPACE.** *Pharmaceutical service space shall comply with the provisions of Section 1224.19.1, 1224.19.2, and 1224.19.6.*

# **Proposals for Part 2 Volume 2 2022 California Building Code**

# 16A STRUCTURAL DESIGN

## 1617A.1.18 ASCE 7, Section 13.1.4.

...

13.1.4.a [OSHDP 1, **1R**, 2, 4 & 5]. The following nonstructural components and equipment shall be anchored in accordance with this section. Design and detailing shall be in accordance with Chapter 13 except as modified by this section.

1. Fixed Equipment: Equipment...

# 16A STRUCTURAL DESIGN

## 1617A.1.18 ASCE 7, Section 13.1.4.

...

### 13.1.4.a [OSHPD 1, 1R, 2, 4 & 5]. ..

Adding a new equipment classification “Wall and Ceiling Hung” to clarify the intent of the 1617A.1.18 Exemption 2

## Ground motions:

- Propose to adopt ASCE 7-16 Supplement 3
- Alternatively use ASCE 7-22 ground motion maps with limitations



# **Proposals for Part 3 2022 California Electrical Code**

# Amend OSHPD Definition Due to Code Change

**Coordination, Selective (Selective Coordination).** Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the available fault current, and for the full range of overcurrent protective device opening times associated with those overcurrents. (CMP-10)

*[OSHPD 1, 2, 3, & 4, & 5] Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings utilizing the 0.10 second level of the overcurrent protective device from the time current curve as the basis for the lower limit of the calculation method.*

# Add OSHPD Requirements for Acceptable Equipment

**110.2 Approval.** The conductors and equipment required or permitted by this Code shall be acceptable only if approved.

[OSHPD 1, 1R, 2, 3, 4 & 5] Equipment shall be approvable if the equipment meets the following requirements:

- Equipment is listed, labeled or certified for its use by a Nationally Recognized Testing Laboratory (NRTL) as recognized by the U.S. department of Labor, Occupational Safety and Health Administration or Equipment is field evaluated and labeled by a Field Evaluation Body (FEB) that is accredited by International Accreditation Services (IAS) in accordance with NFPA 790.
- Equipment has special seismic certifications when required by Sections 1705.13.3 and 1705A.13.3 of California Building Code.
- Equipment is new except where new components for existing equipment are no longer commercially available. In these cases, reconditioned equipment may only be used where allowed by the Code.

# Add Pointer to CBC Similar CBC Requirement

## 110.26 Spaces About Electrical Equipment.

...

### (C) Entrance to and Egress from Working Space.

...

**(3) Personnel Doors.** Where equipment rated 800 amperes or more that contains overcurrent devices, switching devices, or control devices is installed and there is a personnel door(s) intended for entrance to and egress from the working space less than 7.6 m (25 ft) from the nearest edge of the working space, the door(s) shall open in the direction of egress and be equipped with listed panic hardware or listed fire exit hardware.

[OSHDP 1, 1R, 2, 3, 4, & 5] See California Building Code, Section 1010.1.10 for additional exit door requirements for electrical room with equipment rated 800-amperes or more.

Informational Note: For information on panic hardware, see UL 305, Standard For Safety For Panic Hardware. For fire exit hardware, see UL 305, Standard For Panic Hardware, and UL 10C, Standard for Safety for Positive Pressure Fire Tests of Door Assemblies.

# Revise Type 1 Essential Electrical System Requirements for OSHPD 4 and OSHPD 5

## 517.29 Source of Power

...

*(A.1) [OSHPD 1, 2, 3, 4 & 5] Applicability. The requirements of Part III, 517.29 through 517.35, shall apply to hospitals, facilities subject to the requirements of CEC 517.40(B), clinics subject to the requirements of CEC 517.45(B) or (C), correctional treatment centers and acute psychiatric hospitals providing critical care (Category 1) ~~and/or general care (Category 2)~~ services.*

# Allow Battery Systems for Essential Electrical System

## 517.30 Source of Power

...

### (B) Types of Power Sources.

...

**(1.1) [OSHPD 1, 3, 4 and 5] Generating Units.** *The alternate source of power shall be one of the following:*

*(A) Generator(s) driven by some form of prime mover(s) and located on the premises.*

*(B) Another generating unit(s) where the normal source consists of a generating unit(s) located on the premises.*

*(C) As provided in paragraph (B)(2) below. {Fuel Cell System}*

*(D) As provided in paragraph (B)(3) below. {Battery System}*

*All on-premises sources of power shall meet the on-premises fuel or stored energy requirements specified in Article 700.12.*

# Allow Option for Receptacles and Light Switches to be Identified on Device or Cover Plate

## 517.31 Requirements for the Essential Electrical System.

...

**(E) Receptacle Identification.** The cover plates for the electrical receptacles *[For OSHPD 1, 2, 3, 4 & 5]* and light switches ~~*[For OSHPD 1, 2, 3, 4 & 5]*~~ or the electrical receptacles and light switches supplied from the life safety and critical branches shall have a distinctive color or marking so as to be readily identifiable. [99:6.7.2.3.5(B)]

# Add Critical Branch Power Requirement for Fluoroscopy Room and Correct Numbering Due to Change In Model Code

## 517.34 Critical Branch.

### (A) Task Illumination, Fixed Equipment, and Selected Receptacles.

...

#### (4) Nurse call systems

*[OSHPD 1, 2, 3, 4 & 5] Exception: Battery-powered components of wireless emergency nurse call systems complying with the latest edition of ANSI/UL 1069, Standard for Hospital Signaling and Nurse Call Equipment.*

...

#### (7) Task illumination, select receptacles, and select power circuits for the following areas:

- a. Category 1 (critical care) or 2 (general care) spaces with at least one duplex receptacle per patient bed location, and task illumination as required by the governing body of the health care facility.

...

*I. Fluoroscopy room required in California Building Code Section 1224.18.1. Fluoroscopy equipment may be connected to equipment branch.*

...

~~(4011)~~ *[OSHPD 1, 2, 3, & 4 & 5] The following equipment:*



# Allow UPS Systems for Serving Telecommunication and IT Networks Equipment to be Powered By Equipment Branch

## **517.35 Equipment Branch Connection to Alternate Power Source.**

### **(A) Equipment for Delayed Automatic Connection.**

...

*(10) [OSHDPD 1, 2, 3, 4 & 5] Where provided, UPS systems serving telephone, data, IT-network equipment, technology and telecommunications equipment rooms and closets shall be permitted to be powered by the equipment branch.*

# Update Nurse Call Requirements

- **517.123 [OSHPD 1, 2, 3, 4 & 5] Call Systems**
- **(A) General.**
- *(1) Nurse call devices shall be installed in the locations required in ~~Table 1224.4.6.5~~ Sections 1224, 1225, 1226, 1227, and 1228 of the California Building Code. One device shall be permitted to accommodate any combination of patient station, staff emergency, and code call, provided the individual functions and requirements listed below are met.*

*(An option would be to add notes to CBC Table 1224.4.6.5 and leave this requirement unchanged)*

# Add Minimum Energy Storage Requirements for Battery System

**700.12(C) Storage Battery.** Storage batteries shall be of suitable rating and capacity to supply and maintain the total load for a minimum period of 11½ hours, without the voltage applied to the load falling below 87½ percent of normal. Automotive-type batteries shall not be used.

An automatic battery charging means shall be provided.

Exception: [OSHDP 1, 2, 3, 4 & 5] Battery system used as an alternate power source for Type 1 essential electrical system shall be of suitable rating and capacity to supply and maintain the maximum actual demand required in 517.31(D.1) for the time durations specified in 700.12(D)(2)(a).

# Relocate Existing OSHPD Amendment and Add Reference to CMS Regulations

**700.12 General Requirements. ...**

**(D) Generator Set. ...**

**(2) Internal Combustion Engines as Prime Movers.**

(a) On-Site Fuel Supply. Where internal combustion engines are used as the prime mover, an on-site fuel supply shall be provided with an on-premises fuel supply sufficient for not less than 2 hours' operation of the system. ...

*Exceptions [SFM, OSHPD 1, 2, 3, 4 & 5]*

*Exception No. 1: [SFM, OSHPD 1, 2, 3, 4 & 5] The on-premises fuel supply shall be sufficient for not less than 24 hours full-demand operation in acute general care hospitals and correctional treatment centers that provide optional services. For acute care hospital facilities required to meet NPC-5, the on-premise fuel supply shall be sufficient for no less than 72 hours full-demand operations.*

*Exception No. 2: [SFM, OSHPD 1, 2, 3, 4 & 5] The on-premises fuel supply shall be sufficient for not less than 6 hours full-demand operation in the following health facilities of seven or more beds: correctional treatment centers that provide only basic services, acute psychiatric hospitals, intermediate care facilities, and skilled nursing facilities.*

*Exception No. 3: [SFM, OSHPD 1, 2, 3, 4 & 5] The on-premises fuel supply shall be sufficient for not less than 4 hours full-demand operation in ambulatory surgical clinics.*

**[OSHPD 1, 2, & 5]: For facilities subject to CMS regulations, see 42 CFR 482.15(e)(3) and 42 CFR 483.73(e)(3) for emergency generator fuel requirements.**

# Code of Federal Regulations (CFR)

## §482.15(e)(3)

Emergency generator fuel. Hospitals that maintain an onsite fuel source to power emergency generators must have a plan for how it will keep emergency power systems operational during the emergency, unless it evacuates.

## §483.73(e)(3)

Emergency generator fuel. Long-Term Care (LTC) facilities that maintain an onsite fuel source to power emergency generators must have a plan for how it will keep emergency power systems operational during the emergency, unless it evacuates.

# **Proposals for Part 4 2022 California Mechanical Code**

# Outdoor Air Ventilation Minimums

Historically, determining the minimum total outdoor air (OA) required was relatively simple when each space in a medical facility could be referenced in Table 4-A. For non-treatment spaces that were administrative in nature the ventilation values for “Administrative” were often applied. As OSHPD is mandated to utilize appropriate national standards; in the 2016 intervening code cycle OSHPD adopted ASHRAE 170-2013 (170), *Ventilation of Health Care Facilities*, through addendum ae. As 170 is managed in a method of constant maintenance OSHPD set the standard at this specific version to establish a concise reference. IAPMO also adopted ASHRAE 170 at that time. With the adoption of 170 Table 4-A was altered to match the ventilation requirements from 170 for 4-A spaces. 4-A spaces unique to OSHPD but not listed in 170 are included in the table in italics. OSHPD put the table in alphabetical order and received permission from ASHRAE to reproduce data from ASHRAE 170 in CMC Table 4-A. In the interest of energy consumption and reducing climate change OSHPD has explicitly allowed the use of ASHRAE 62.1 for spaces not listed in Table 4-A.

# Outdoor Air Ventilation Minimums

170 also allows the use of ASHRAE 62.1, *even for medical spaces*. OSHPD removed spaces from CMC Table 4-A that were not unique to healthcare. Through ongoing analysis of the ventilation requirements for healthcare facilities, communication with design professionals and meetings with ASHRAE 170, OSHPD determined there was a need to simplify the minimum ventilation requirements in the code. Good code should be *simple, easy for designers to use, not open to excessive interpretation and ensure the safety of the occupants of the buildings* – especially the buildings under OSHPD authority.



# Outdoor Air Ventilation Minimums

Some allowances in ASHRAE 62.1 are not appropriate in a system that serves healthcare. They include:

- Applying a diversity factor (D) to the zones served by an air handler.
- The use of short-term conditions (such as occupancy) for design of facilities.
  - Asepsis has not been established to be time-dependent, as contagions can exist in a space that is not occupied.
  - OSHPD facilities other than outpatient clinics are operated 24/7.
- Demand control (CO<sub>2</sub>) ventilation has not been determined to be effective for asepsis - yet.

The use of these factors in an air handler serving a healthcare setting is unclear.

# Outdoor Air Ventilation Minimums

**406.0 Outdoor Air Intake for OSHPD Facilities. [For OSHPD 1, 2, 3, 4 & 5]** *The minimum airflow into the outdoor air intake of air handlers serving OSHPD facilities shall be sufficient to meet the minimum ventilation requirements of equation 406.1 and Table 4-D at all times. Design documents shall clearly show the sum of outdoor air required for each air handler.*

# Outdoor Air Ventilation Minimums

**406.1 Air Handler Serving Only Areas on Table 4-A.** *The total minimum outdoor airflow ( $V_{4A}$ ) required for spaces served by the air handler shall be determined in accordance with Equation 406.1.*

$$V_{4A} = \sum_{\text{medical spaces}} (\text{Space Volume}) (ACH_{4A}) / 60 \quad (\text{Equation 406.1})$$

*Where:*

$V_{4A}$  = minimum total OA required for multiple 4-A spaces, cfm

$ACH_{4A}$  = outdoor air required for spaces per Table 4-A, ACH

# Outdoor Air Ventilation Minimums

**406.2 Air Handlers Only Serving Areas on Table 4-D.** The total minimum outdoor airflow rate ( $V_{OTD}$ ) for air handling equipment that serves only spaces on Table 4-D shall be determined in accordance with Equation 406.2;

$$V_{OTD} = \sum_{\text{non-medical spaces}} (R_{aD} \times A_Z) \quad (\text{Equation 406.2})$$

Where:

$V_{OTD}$  = total minimum outdoor air required, cfm

$R_{aD}$  = minimum OA required for each space from Table 4-D, cfm (Table 120.1-A in Part 6 or use Table 402.1,  $R_a$ )

$A_Z$  = occupiable floor area of the space, square feet

# Outdoor Air Ventilation Minimums

**406.3 Air Handler Serving Areas on Table 4-A and Table 4-D.** *The total minimum outdoor airflow ( $V_{OT}$ ) required for spaces served by the air handler that serves spaces on Table 4-A and Table 4-D shall not be less than the value determined with Equation 406.3.*

$$V_{OT} = (V_{4A} / R_{T-4A}) V_{AH} \quad (\text{Equation 406.3})$$

*Where:*

$V_{OT}$  = total minimum outdoor air required, cfm

$V_{4A}$  = minimum total OA required for multiple 4-A spaces, cfm

$R_{T-4A}$  = total air delivered to 4-A spaces, cfm

$V_{AH}$  = total air delivered by the air handler, cfm

# Outdoor Air Ventilation Minimums

**TABLE 4-D OSHPD, NON-MEDICAL VENTILATION REQUIREMENTS FOR  
GENERAL ACUTE CARE HOSPITALS, SKILLED NURSING FACILITIES,  
INTERMEDIATE CARE FACILITIES, CORRECTIONAL TREATMENT CENTERS,  
OUTPATIENT FACILITIES, AND LICENSED CLINICS**

<b><u>OCCUPANCY CATEGORY</u></b>	<b><u>AREA OUTDOOR AIR RATE <math>R_a</math></u> <u>cfm/ft<sup>2</sup></u></b>
<u>All others</u>	<u>0.15</u>
<u>Auditorium seating area <sup>a</sup></u>	<u>0.15</u>
<u>Barbershop/salon</u>	<u>0.40</u>
<u>Barracks sleeping areas</u>	<u>0.15</u>
<u>Breakrooms</u>	<u>0.50</u>
<u>Cafeteria/fast-food dining</u>	<u>0.50</u>
<u>Classrooms (age 5–18)</u>	<u>0.38</u>
<u>Coffee Stations</u>	<u>0.50</u>

# Outdoor Air Ventilation Minimums

<b><u>OCCUPANCY CATEGORY</u></b>	<b><u>AREA OUTDOOR AIR RATE <math>R_a</math></u></b> <b><u>cfm/ft<sup>2</sup></u></b>
<u>Places of religious worship</u> <sup>a</sup>	<u>0.15</u>
<u>Reception areas</u>	<u>0.15</u>
<u>Restaurant dining rooms</u>	<u>0.50</u>
<u>Shipping/receiving</u> <sup>b</sup>	<u>0.15</u>
<u>Skilled nursing resident corridors</u>	<u>0.15</u>
<u>Staff sleep</u>	<u>0.15</u>
<u>Swimming (deck)</u>	<u>0.50</u>
<u>Swimming (pool)</u>	<u>0.15</u>
<u>Warehouses</u> <sup>b</sup>	<u>0.15</u>

**Notes for Table 4-D:**

- a. Demand control ventilation minimum value.
- b. Rate may not be sufficient where stored materials include those having potentially harmful emissions.

# Other Part 4 Proposals

- Concise language prohibiting refrigerant piping in exit enclosures.
- Pointer to diffuser requirements in ASHRAE 170.
- Possibly remove VAV controls for NR-pressure spaces.
- Define zone
- Add power exhaust to economizers.
- Fix gamma cameral duplication in Table 4-A



# **Proposals for Part 5 2022 California Plumbing Code**

# Part 5 Proposals

- Place hot water alarms on essential power.
- Evaluate medical oxygen line diversity factor for possible change to 100%
- Insert clear certification requirements for medical gas inspectors.
- Rewrite emergency water storage requirements.

# Emergency Water Storage

- It's common for a hospital to use 500 gallons/day/bed.
- Irrigation is typically 1/3 of the consumption – shut it off per the Emergency Response Plan
- A good ballpark consumption for cooling towers is 143 gallons/day/bed. Note: This does not need to be potable.
  - Healthcare providers and their designers should target what they will need to cool in an emergency/post-incident setting.
- Revisiting SPC-5 requirements: Structural/non-Structural Committee.

# **Proposals for Part 10 2022 California Existing Building Code**

## 202 GENERAL DEFINITIONS

**[BS] SUBSTANTIAL STRUCTURAL DAMAGE.** A condition where any of the following apply:

1. The vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.
2. The capacity of any vertical component carrying gravity load, or any group of such components, has a tributary area more than 30 percent of the total area of the structure's floor(s) and roof(s), has been reduced more than 20 percent from its predamage condition, and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by the ~~California~~ International Building Code for new buildings of similar structure, purpose and location.
3. The capacity of any structural component carrying snow load, or any group of such components, that supports more than 30 percent of the roof area of similar construction, has been reduced more than 20 percent from its predamage condition, and the remaining capacity with respect to dead, live and snow loads is less than 75 percent of that required by the ~~California~~ International Building Code for new buildings of similar structure, purpose and location.

**[OSHPD 1 & 1R]** A condition where any of the following apply:

1. The vertical elements of the lateral force-resisting system...

## SECTION 303A

### STRUCTURAL DESIGN LOADS AND EVALUATION AND DESIGN PROCEDURES

#### **303A.3.4.5 SPC-4D using ASCE 41.**

...

**Exception ASCE 41-13 § 7.2.13.2 Separation Exemptions: Add the following exemption**

*The exceptions are rewritten to clarify the original intent*

*The section of the exemptions will be relocated to under section 303A.3.5.2 or 303A.3.5.3*

Modify ASCE 41 for foundation acceptance criteria for SPC-4D buildings

Thank you



### **3. Presentation: Emergency Design Task Force**

Facilitators: Chris Tokas and Richard Tannahill, OSHPD (or designees)

- Proposal of an Emergency Design Task Force to address design and regulatory concerns for emergencies
- Discussion and public input

# Emergency Design Task Force Update

## Topics Focus

- What are temporary measures that were used or can be made permanent?
- What does flexibility really mean? Can it be put back to original conditions?
- What should be considered for small versus large hospitals (urban vs rural)?

# Emergency Design Task Force Update

## International Concepts

- Working on diagrammatic case studies
  - Emergency Department
    - Waiting Rooms
    - Patient Flow
  - Observation Units
  - Clinical Options

EMERGENCY RESPONSE SPACES:

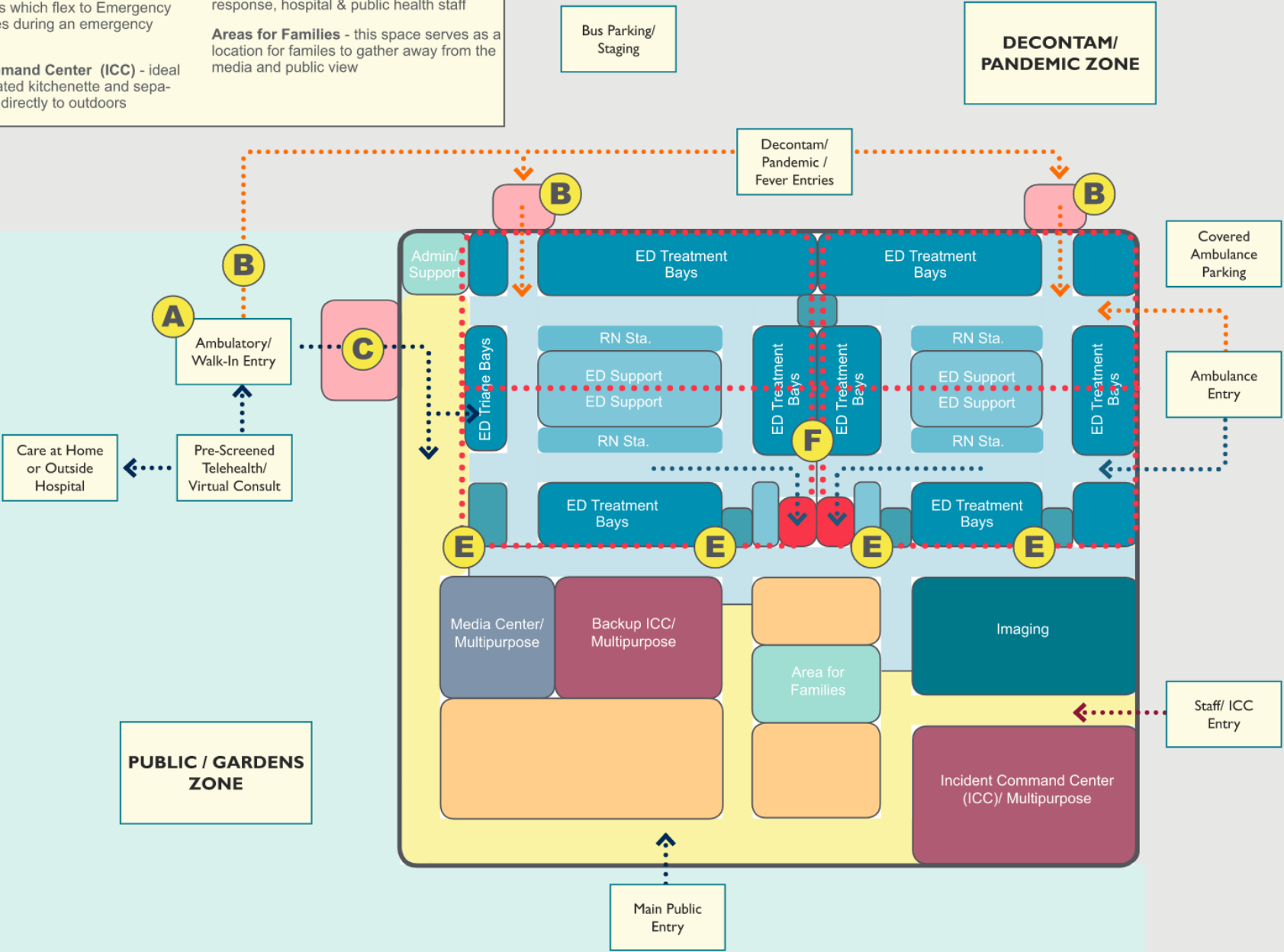
Support spaces that can flex into Emergency Response spaces. Typically these spaces are conference (expandable), classrooms, workrooms, etc. that are multi purpose rooms which flex to Emergency Response uses during an emergency include:

**Incident Command Center (ICC)** - ideal to have dedicated kitchenette and separate entry/exit directly to outdoors

**Backup ICC** - for secondary ICC overflow

**Media Center** - a location for media to gather and receive updates from emergency response, hospital & public health staff

**Areas for Families** - this space serves as a location for families to gather away from the media and public view



**A** Patients triaged via telehealth/virtual care or curbside/outside the hospital & directed to most appropriate entry. "Emergency Event" triage include temperature check & questionnaire regarding travel, exposure, etc.

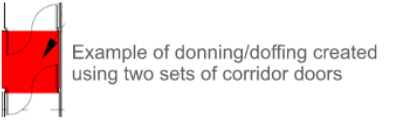
**B** Febrile patients are directed to Emergency Department fever entry/entries

**C** Non-febrile, ambulatory patients enter for additional/typical triage through Ambulatory Entry

**D** Ambulance patients are triaged off-site/en route with option to enter the "Decontam/Pandemic" compartment

**E** Anteroom or vestibule (created with two sets of corridor doors) to each Emergency Department compartment, which allows each compartment to be locked and isolated with one-way flow (donning & doffing through separate vestibules)

**F** Emergency Department contains two or more compartments that have separate, dedicated & redundant building systems which allows each unit to be locked & become a "Decontam/Pandemic" compartment. One-way flow in & out of each compartment through donning & doffing anteroom/corridor vestibule (anteroom vs. corridor vestibule is based on facility operational model).



Example of donning/doffing created using two sets of corridor doors

# Emergency Design Task Force Update

## Top Six Topics/Concerns

- 1) Quick conversion to negative pressure Design Concerns.
  - a. No negative in ORs
  - b. Flexibility may not be so easy to achieve
  - c. Alarms to switch back
- 2) Changes of outside air percentage during wildfires due to smoke.
  - a. Filters are better than eliminating outside air
  - b. Keep minimum outside air to dilute contaminants
  - c. Carbon filters should be final filter
- 3) How to better expedite Emergency projects.
  - a. Better communication
  - b. Access to information
  - c. Contact with field staff

# Emergency Design Task Force Update

## Top Six Topics/Concerns

- 4) Designing spaces to accommodate multiple beds.
  - a. Better to allow this on site as staff and equipment are available
  - b. Ventilated headwalls
- 5) Further streamlining with other jurisdictions of Temporary Surge Facilities.
  - a. Maybe not OSHPDs role?
- 6) Waiting rooms (emergency room) that can be split and separated with multiple entrances/exits.
  - a. Redundancy in units
  - b. May be hard to do with overcrowded EDs
  - c. Triage areas
  - d. Use of portable equipment

## **5. Comments from the Public/Committee Members on issues not on this agenda**

Facilitator: Michael O'Connor, Committee Chair

The Committee will receive comments from the Public/Committee Members. Matters raised at this time may be taken under consideration for placement on a subsequent agenda.